CONTENTS VOL. 95, 1987

Research Papers

The effect of bypass flow and internal catchment of rain on the water regime in a clay loam grassland soil
T.P.J. van Stiphout (Amsterdam, The Netherlands), H.A.J. van Lanen, O.H. Boersma and J. Bouma (Wageningen, The Netherlands) 1
A simple method to estimate specific equilibrium soil-water content in a uniform soil
J.M. Schouwenaars (Wageningen, The Netherlands) 13
Finite-element simulation of low-temperature, heat-pump-coupled, aquifer thermal energy storage
T.E. Dwyer (Westerville, Ohio, U.S.A.) and Y. Eckstein (Kent, Ohio, U.S.A.) 19
Snowmelt runoff pathways in a boreal forest hillslope, the role of pipe throughflow
J. Roberge and A.P. Plamondon (Sainte-Foy, Que., Canada) 39
Water uptake by plant roots — A simulation model, I. Conceptual model
P. Perrochet (Lausanne, Switzerland) 55
The hydrogeology, hydrochemistry and environmental isotopes of the Campaspe River aquifer system, North-Central Victoria, Australia
A. Arad (Jerusalem, Israel) and R. Evans (Canberra City, A.C.T., Australia) 63
Elliptical inhomogeneities in groundwater flow — An analytical description
A.N.M. Obdam (Haarlem, The Netherlands) and E.J.M. Veling (Bilthoven, The Netherlands) 87
Behavior of various solutes in a field soil — Six years observation
T. Kuboi and S. Otama (Tsukuba, Japan). 97
The representation of flows to partially penetrating rivers from layered and anisotropic aquifers
J.C. Miles (Cardiff, U.K.) 113
Measurement of isotopic equilibrium between water, water vapour and soil CO_2 in arid zone zoils
G.B. Allison (Glen Osmond, S.A., Australia), C. Colin-Kaczala, A. Filly and J. Ch. Fontes (Orsay, France). 131
A linear graphical method for determining hydrodispersive characteristics in tracer experiments with instantaneous injection
H.Q. Wang (Orsay, France), N. Crampon (Villeneune d'Ascq, France), S. Huberson and J.M. Garnier (Orsay, France) 143
A conceptual catchment model for estimating suspended sediment flow
S. Kumar and R.A. Rastogi (Pantnagar, India) 155
Approche statistique de l'aridification de l'Afrique de l'Ouest (Statistical approach of the aridification process in Western Africa)
P. Hubert (Fontainebleau, France) and J.-P. Carbonnel (Paris, France). 165
Synoptic evapotranspiration model applied to two northern forests of different density
B. Bringfelt (Norrköping, Sweden) and A. Lindroth (Uppsala, Sweden) 185
Estimating flood peaks from small rural catchments in Switzerland
E. Kölla (Zurich, Switzerland) 203
Estimation of average areal evapotranspiration — Proposal to modify Morton's model based on the complementary character of actual and potential evapotranspiration
G. Kovács (Laxenburg, Austria) 227
Predicting groundwater flow in a phreatic aquifer
S.E. Serrano (Lexington, Ky., U.S.A.) and T.E. Unny (Waterloo, Ont., Canada) 241

Water table rise in a semiconfined aquifer due to surface infiltration and canal recharge
S. Mustafa (Zaria, Nigeria) 269
Type curves in patchy aquifers
Z. Şen (Jeddah, Saudi Arabia) 277
Boat traffic, sediment resuspension and turbidity in a Broadland river
P.N. Garrad (Edinburgh, U.K.) and R.D. Hey (Norwich, U.K.) 289
Disaggregation of daily rainfall
J. Hershenhorn and D.A. Woolhiser (Tucson, Ariz., U.S.A.) 299
Combined hydrologic sampling criteria for rainfall and streamflow
D.G. Tarboton, R.L. Bras (Cambridge, Mass., U.S.A.) and C.E. Puente (Davis, Calif., U.S.A.) 323
Recursive estimation of kernels of nonlinear rainfall–runoff models
S.G. Rao (Tampa, Fla., U.S.A.) and A.R. Rao (West Lafayette, Ind., U.S.A.) 341

Short Note

Effect of groundwater recharge on configuration of the water table beneath sand dunes and on seepage in lakes in the sandhills of Nebraska, U.S.A. — Comment
J.T. McCord and D.B. Stephens (Socorro, N.M., U.S.A.) 365